

stored in a frozen state until shortly before consumption by the end user. Prior to being consumed, the fried egg-based product, the baked egg-based product, the microwaved egg-based product, or simply the coated egg-based product may be heated and thawed using any desired heating technique. Typically, prior to being consumed, the fried egg-based product, the baked egg-based product, the microwaved egg-based product, or the coated egg-based product will be thawed and heated using a conventional oven, a convection oven, a toaster oven, a microwave oven, or a deep fat fryer. The fried egg-based product, the baked egg-based product, and the microwaved egg-based product are preferably heated to an internal temperature ranging from about 145° F. to about 165° F. in preparation for consumption. On the other hand, the coated egg-based product may additionally be heated for a heating period and at a temperature sufficient to sufficiently cook the breading and batter coating while additionally heating the coated egg-based product to an internal temperature ranging from about 145° F. to about 165° F. in preparation for consumption.

Inclusion of the thickening agent (such as the water-absorbent crumbs, including the water-absorbent bread crumbs) increases the thickness and viscosity of the egg-based material and thereby helps retain suspension and distribution of the optionally-added pieces of supplemental food throughout the egg-based material. After the egg-based material is heated and thereby cooked to form the egg-based product of the present invention, the existence of the thickening agent that continues to hold free water and any optional added water helps prevent separation of water upon freeze/thaw (reheating) cycling of the egg-based product and derivatives of the egg-based product, such as the fried egg-based product, the baked egg-based product, the microwaved egg-based product, or simply the coated egg-based product.

Consequently, due to incorporation of the thickening agent (such as the water-absorbent crumbs, including the water-absorbent bread crumbs) in the egg-based material in accordance with the present invention, the egg-based product and derivatives of the egg-based product, such as the fried egg-based product, the baked egg-based product, the microwaved egg-based product, and the coated egg-based product exhibit freeze/thaw stability upon freeze/thaw (reheating) cycling of the egg-based product and derivatives of the egg-based product. This freeze/thaw stability of the egg-based product and derivatives of the egg-based product is visually discernable by simple observation.

Specifically, if a frozen form of the egg-based product or any derivative of the egg-based product is thawed, such as by heating, and little, if any, free water originating from the thawed egg-based product or from the thawed derivative of the egg-based product is visually observed proximate the thawed egg-based product or proximate the thawed derivative of the egg-based product, then the egg-based product or any derivative of the egg-based product is said to exhibit freeze/thaw stability. Otherwise stated in numeric terms, when a frozen form of the egg-based product or any derivative of the egg-based product weighing about 50 grams is thawed, the egg-based product or the derivative of the egg-based product is said to exhibit freeze/thaw stability when about two grams or less of free water originating from the thawed egg-based product or from the thawed derivative of the egg-based product visually appears proximate the thawed egg-based product or proximate the thawed derivative of the egg-based product.

In various embodiments, when a frozen form of the egg-based product or any derivative of the egg-based product weighing about 50 grams is thawed about one gram or less of free water originating from the thawed egg-based product or

from the thawed derivative of the egg-based product visually appears proximate the thawed egg-based product or proximate the thawed derivative of the egg-based product. In some of these embodiments, when a frozen form of the egg-based product or any derivative of the egg-based product weighing about 50 grams is thawed, no free water originating from the thawed egg-based product or from the thawed derivative of the egg-based product is visually observed proximate the thawed egg-based product or proximate the thawed derivative of the egg-based product.

Besides being visually appealing to consumers, the presence of only little, if any, free water upon thawing of a frozen form of the egg-based product or a frozen form of any derivative of the egg-based product demonstrates the thawed egg-based product and the thawed derivatives of the egg-based product will exhibit good organoleptic properties. For example, retention of water within the thawed egg-based product and the thawed derivatives of the egg-based product will tend to prevent the thawed egg-based product and the thawed derivatives of the egg-based product from becoming tough, chewy, and unpalatable to human beings. Consequently, retention of water within the thawed egg-based product and thawed derivatives of the egg-based product that is supported by incorporation of the thickening agent within the egg-based material allows the thawed egg-based product and thawed derivatives of the egg-based product to exhibit the same or very similar organoleptic properties exhibited soon after original preparation (without freezing), or shortly thereafter, by the egg-based product and derivatives of the egg-based product.

Although the present invention has been described with reference to preferred embodiments, workers skilled in the art will recognize that changes may be made in form and detail without departing from the spirit and scope of the invention.

The invention claimed is:

1. An egg-based material, the egg-based material comprising:

an egg-based substance comprising between about 65 weight percent and 99.5 weight percent of the egg-based material;

a water-absorbent thickener comprising between about 0.2 weight percent and 8 weight percent of the egg-based material, the water-absorbent thickener being distributed throughout the egg-based material; and

pieces of supplemental food distributed throughout the egg-based material, the water-absorbent thickener effective to maintain distribution of the pieces of supplemental food throughout the egg-based material, and wherein the egg-based material originates substantially no free water upon freezing and then thawing and exhibits the same or similar organoleptic characteristics after freezing and thawing as the egg-based material had prior to freezing and thawing.

2. The egg-based material of claim 1 wherein the supplemental food is selected from the group consisting of cheese, cooked egg, meat, fish, shellfish, vegetables, fruit, grain, and any of these in any combination.

3. The egg-based material of claim 1 wherein the egg-based substance includes a natural liquid egg component selected from the group consisting of natural liquid whole egg, natural liquid egg yolk, natural liquid egg white, and any combination of any of these.

4. The egg-based material of claim 1 wherein the water-absorbent thickener comprises chunks, pieces, particles, or crumbs of a cooked food product.